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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jean-Christophe Giron

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09/09/2009

OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER

STULTZ, JESSICA T

ART UNIT

PAPER NUMBER

2873

NOTIFICATION DATE

DELIVERY MODE

09/09/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,322	<b>Applicant(s)</b> GIRON ET AL.	
	<b>Examiner</b> JESSICA T. STULTZ	<b>Art Unit</b> 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### ***Examiner's Comments***

The amendments to the Oath and Specification, as well as claims 6-7 and 14, filed June 16, 2009 overcome the previous objections. The amendments to claims 1 and 11 overcome the previous 112 rejections of these claims.

### ***Claim Objections***

Claims 1 and 17 are objected to because of the following informalities: claim 1, line 5, "wherein the stack being placed" should be "wherein the stack is placed"; claim 17, "of claim 5" should be "of claim 1". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 15, and 17 (and therefore dependent claims 2-4, 6-14, 16, and 18) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1 and 17, the phrase "a complexity value F" is vague and indefinite since it is not claimed how F is calculated and what factors affect the complexity value. Additionally, the values H, C, and Z are not defined in the specification on pages 6-7 and therefore it is not clear what factors affect the complexity value or how it is determined. Specifically, the Figure 2 does not include all of the points listed in the equations on Page 7 and it is not clear what is measured at the points on the Figure. For purposes of examination it is assumed that the claims refer to a device having a complex non-planar surface.

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Regarding claim 15, the phrase "which further comprises at least one additional electrochromic functionality" is vague and indefinite since it is not clear what limitation this places on the claim. For purposes of examination the assumed meaning is "which acts as a window and transmits or reflects light".

Claim 2-4, 6-14, 16, and 18 are rejected since they inherit the indefiniteness of the claims from which they depend.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-11, 15-18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba et al US 4,773,741, herein referred to as Inaba '741, in view of Ojeda US 5,981,076, herein referred to as Ojeda '076.

Regarding claim 1, Inaba '741 discloses an electrically controllable device having variable optical/energy properties in transmission or in reflection (Abstract and Column 6, lines 40-68, wherein the device is a display device and therefore has variable transmittance, Figure 4), comprising at least one carrier substrate (20) provided with a stack of electrochromically functional layers (14, 18, 24), including at least two electrochromic active layers (14, 24) separated by an electrolyte (18), wherein said stack is placed between a lower current lead (22) and an upper current lead (12), wherein the lower current lead is positioned nearest to the carrier substrate and the upper current lead is positioned furthest from the substrate (Figure 4), and

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wherein the stack of functional layers (14, 18, 24) is joined to at least one polymer film (Column 5, line 21-Column 6, line 20, wherein the polymer film comprises polyethylene sheets 34 and 36, Figure 4), but does not specifically disclose that the at least one polymer film has a percentage shrinkage between 0.6 and 2.0% or that the complex non-planar surface.

In the same field of endeavor of electro optic devices (Abstract), Ojeda '076 teaches of using at least one polymer film, specifically PMMA or PET films, with a percentage shrinkage between 0.6 and 2.0% (Figure 4, Column 9, line 36-Column 10, line 3). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the polymer film of Inaba '741 to have a percentage shrinkage between 0.6 and 2.0% as taught by Ojeda '076 for the purpose of providing UV protection and resistance to outdoor devices (Column 1, line 6-8 and Column 3, lines 15-28).

Additionally, it has been held that that a mere change in the shape of a device would have been obvious absent persuasive evidence that the claimed configuration is significant, which is the case in the instant application, since there is no evidence that the shape of the device is significant to the invention. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the device of Inaba '741 and Ojeda '076 to comprise a complex non-planar surface for the purpose of providing curved outside surfaces that provide at least some vision correction to the user.

Regarding claim 2, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Ojeda '076 further discloses that the polymer film birefringent dielectric multilayer

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film (Column 9, line 36-Column 10, line 3) suitable for reflecting at least 50% of the light within a spectral band of at least 100 nm (Figure 5).

Regarding claims 3-4, 6-7, 15, and 18, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, but do not specifically disclose that the device comprises one of a vehicle sunroof, which can be actuated autonomously, or a vehicle side window or a rear window, a windscreen or a portion of a windscreen, the top part of a windscreen, the central part of the windscreen, with the aid of automated control of its power supply using at least one camera and/or at least one light sensor, or is in the form of one or more bands along the outline of the windscreen. However, it is well known in the art of electrochromic devices that these devices are used in one of a vehicle sunroof, which can be actuated autonomously, or a vehicle side window or a rear window, a windscreen or a portion of a windscreen, the top part of a windscreen, the central part of the windscreen, with the aid of automated control of its power supply using at least one camera and/or at least one light sensor, or is in the form of one or more bands along the outline of the windscreen. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made for the electrochromic device to be in one of the claimed devices for the purpose of blocking unwanted light from a user by reflecting/transmitting different wavelengths of light.

Regarding claims 11, and 17, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Inaba '741 further discloses that the substrate is transparent (Column 4, line 1) but do not specifically disclose that device comprise complex non-planar, or at least partly curved surfaces. However, it has been held that that a mere change in the shape of a device would have been obvious absent persuasive evidence that the claimed configuration is

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significant, which is the case in the instant application, since there is no evidence that the shape of the device is significant to the invention. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the device of Inaba '741 and Ojeda '076 to comprise a complex non-planar or at least partly curved for the purpose of providing curved outside surfaces that provide at least some vision correction to the user.

Regarding claim 8, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Ojeda '076 further teaches that the device comprises one of graphical and/or alphanumeric data display panel, glazing for buildings, a rearview mirror, an aircraft cabin window or windscreen, or a skylight (Column 8, lines 14-48).

Regarding claim 9, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Ojeda '076 further teaches that the device comprises one of interior or exterior glazing for buildings; a shop showcase or countertop, which may be curved; glazing for the protection of an object of the painting type; a computer antidazzle screen; or glass furniture (Column 8, lines 14-48).

Regarding claim 10, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Inaba '741 further discloses that the device operates in transmission or in reflection (Abstract and Column 6, lines 40-68, wherein the device is a display device and therefore has variable transmittance and thereby reflectance, Figure 4).

Regarding claim 16, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Ojeda '076 further teaches that the percentage shrinkage of the polymer film is between 0.8 and 1.5% (Figure 4).

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Regarding claim 20, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, and Inaba '741 further discloses that the polymer film (36) is a planar or substantially planar film contacting only one surface of a lower conducting layer (22, Figure 3).

Claims 12-14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaba '741, in view of Ojeda '076, as applied to independent claim 1 above, and further in view of Agrawal US 7,300,166, herein referred to as Agrawal '166.

Regarding claims 12-14, Inaba '741 and Ojeda '076 disclose and teach of a device as shown above, but do not specifically disclose that the device comprises an opaque or opacified substrate or wherein an electronic conductivity of at least one of the active layers is sufficient for replacing the conducting layers with a grid of wires, specifically wherein the conducting wires increase the conductivity of the active layers, in order to guarantee coloration uniformity. In the same field of endeavor of electrochromic devices, Agrawal '166 teaches of a device comprising an opaque or opacified substrate (Column 35, lines 30-59) wherein an electronic conductivity of at least one of the active layers is sufficient for replacing the conducting layers with a grid of wires, specifically wherein the conducting wires increase the conductivity of the active layers, in order to guarantee coloration uniformity (Column 16, line 49-Column 17, line 10 and Column 18, line 38-Column 19, line 18). Therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to combine the teaching of Agrawal '166 with the device of Inaba '741 and Ojeda '076 for the purpose of providing improved electro optic performance and to provide mirrors that provide color in both day and night (Abstract and Column 3, lines 53-64).



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Regarding claim 19, Inaba '741 and Ojeda '076 and Agrawal '166 disclose and teach of a device as shown above, and Inaba '741 further discloses a first layer of anodic electrochromic material comprising hydrated iridium oxide or hydrated nickel oxide (Column 4, lines 35-55), which can include one or more other metals, multiple layers, including a cathodic electrochromic layer of tungsten oxide (Column 4, lines 35-55); Agrawal '166 further teaches of a layer of hydrated tantalum oxide or hydrated silicon oxide or hydrated zirconium oxide (column 6, line 40-Column 7, line 23).

### ***Response to Arguments***

Applicant's arguments filed June 16, 2009 have been fully considered but they are not persuasive. Specifically, applicant argues that the term "complexity value F" is clear from the specification and drawings, however the examiner disagrees since it is not claimed how F is calculated and what factors affect the complexity value. Additionally, the values H, C, and Z are not defined in the specification on pages 6-7 and therefore it is not clear what factors affect the complexity value or how it is determined. Specifically, the Figure 2 does not include all of the points listed in the equations on Page 7 and it is not clear what is measured at the points on the Figure. Therefore the examiner assumed the intended meaning as shown above. The examiner addressed the shrinkage percentage of the polymer film above as taught by Ojeda '076.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA T. STULTZ whose telephone number is (571)272-2339. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jessica T Stultz  
Primary Examiner  
Art Unit 2873

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/Jessica T Stultz/

Primary Examiner, Art Unit 2873